

PRELIMINARY AMENDMENT

Application Number: 09/002,584

Filing Date: January 5, 1998

Title: SYSTEM FOR SCHEDULED CACHING OF IN-BAND DATA SERVICES

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C2  
Cancel.  
approximately the schedule time,

receiving the in-band data broadcast in the schedule channel regardless of the presence of a user; and

storing the in-band data on mass storage for subsequent retrieval and viewing or use by a user.

Sub  
63  
15. (Twice Amended) A computer-readable medium having computer-executable instructions stored thereon for performing steps comprising:

determining a schedule for the in-band data broadcast, wherein the schedule comprises a time and a channel, said [determination] determining being initiated by a user;

instructing tuning circuitry to power-on and to tune to the schedule channel at approximately the schedule time;

receiving the in-band data broadcast in the schedule channel regardless of the presence of the user; and

storing the in-band data on mass storage for subsequent retrieval and viewing or use by the user.

C3  
16. (Twice Amended) A digital processing system comprising:

a processor having real time clock circuitry;

tuning circuitry for powering-on and for tuning and receiving broadcast transmissions, the tuning circuitry communicatively coupled to the processor;

a computer-readable medium communicatively coupled to the central processor; and

a scheduled caching program executed from the computer-readable medium by the processor, wherein the scheduled caching program initiated by a user causes the real-time clock circuitry to schedule a subsequent execution of the scheduled caching program at approximately a scheduled time and the subsequent execution of the scheduled caching program, regardless of the presence of the user, instructs the tuning circuitry to power-on and to tune to a channel, receives in-band data from the tuning circuitry, and stores the in-band data for subsequent processing for subsequent retrieval and viewing or use by the user.

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Sub E4  
C4  
21. (Twice Amended) A computerized-system for scheduled caching of in-band data broadcast in a channel comprising:

a real-time scheduling process; and

a user-initiated scheduling process having means for determining a scheduled time and channel for an in-band data broadcast, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process has means for instructing tuner circuitry to power-on and to tune to the scheduled channel regardless of the presence of a user, for receiving the in-band data from the tuning circuitry, and for storing the in-band data for subsequent processing.

Sub E5  
C5  
22. (Twice Amended) An information handling system comprising:

a tuner capable of powering-on, the tuner further being tunable to a plurality of channels;

and

a scheduler configured to determine a scheduled time and a scheduled channel from the plurality of channels for receiving information associated with the scheduled channel, the operation of said scheduler being initiated by a user,

wherein the tuner powers-on and tunes to the scheduled channel at approximately the scheduled time, regardless of the presence of the user, to receive the information associated with the channel.

Sub E6  
C6  
32. (Twice Amended) A computer-readable medium having computer-executable instructions stored thereon for performing steps comprising:

determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said [determination] determining being initiated by a user; and

instructing a tuner to power-on and to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel, regardless of the presence of the user, and store the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user.

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Sub  
eq  
C7  
36. (Twice Amended) A method for handling information comprising the steps of:  
determining a scheduled time and a scheduled channel to receive information associated  
with the scheduled channel, said [determination] determining being initiated by a user; and  
instructing a tuner to power-on and to tune to the scheduled channel at approximately the  
scheduled time to receive the information associated with the scheduled channel, regardless of  
the presence of the user, and store the information associated with the channel for subsequent  
processing.

Sub  
eq  
C8  
40. (Twice Amended) An information handling system comprising:  
a tuner having means for powering-on and means for tuning to a plurality of channels;  
and  
a scheduler having means configurable for determining a scheduled time and scheduled  
channel to receive and store information associated with the scheduled channel, the operation of  
said scheduler being initiated by a user,  
wherein the means for powering-on powers-on the tuner and the means for tuning tunes  
to the scheduled channel at approximately the scheduled time to receive the information  
associated with the channel, regardless of the presence of the user, and stores the information  
associated with the channel for subsequent processing, whereby the information may  
subsequently be retrieved and viewed or used by the user.

**REMARKS**

This preliminary amendment is being filed with a Continued Prosecution Application in this matter. Claims 1, 9, 15, 16, 21, 25, 32, 36, and 40 are amended. Claims 8 and 24 are canceled without prejudice or disclaimer, as the subject matter thereof is respectively incorporated into claims 1 and 21. Claims 1-7, 9-23 and 25-43 are now pending in the application.

Applicant respectfully requests reconsideration of the above-identified patent application as amended in view of the following remarks.

Rejections Under 35 U.S.C. § 112

In the Final Office Action mailed May 23, 2000 in this matter, claims 9-15 and 32-39

were rejected under 35 U.S.C. § 112, second paragraph, as lacking antecedent basis. In response, Applicant has amended claims 9, 15, 32 and 36 in response with the Examiner's helpful suggestions, by replacing the word "determination" with "determining". As the basis for the stated rejection is seen to be removed, withdrawal of same is respectfully requested.

Rejections Under 35 U.S.C. § 102

In the Final Office Action mailed May 23, 2000, claims 1-5, 7, 9-23, 25-27, 29-30, 32-34, 36-38 and 40-42 were rejected under 35 U.S.C. § 102(b) as being anticipated by Young (U.S. Patent No. 5,353,121).

Independent claims 1, 9, 15, 16, 21, 25, 32, 36, and 40 have been amended to include the limitation of the tuner powering-on. Applicant has canceled claim 8 and claim 24 stating this limitation without prejudice or disclaimer thereto. As noted at paragraph 7 of the Office Action, "...Young does not ... explicitly state that the tuner may also be powered-on". As Young does not teach each and every feature of the inventions set forth in claims 1-5, 7, 9-23, 25-27, 29-30, 32-34, 36-38 and 40-42, the basis for the stated rejection is seen to be removed. Applicant has clarified with the Examiner that per the Examiner's Advisory Action mailed September 8, 2000 the foregoing amendment indeed removes the basis for this rejection. Withdrawal of the rejection of claims 1-5, 7, 9-23, 25-27, 29-30, 32-34, 36-38 and 40-42 and allowance thereof is respectfully requested.

Rejections Under 35 U.S.C. § 103

In the Final Office Action mailed May 23, 2000, claims 8, 24 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Young. Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Young in view of Yoshinobu (U.S. Patent No. 5,686,954). Claims 28, 35, 39 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Young in view of LaJoie (U.S. Patent No. 5,850,218).

Applicant has clarified the present invention as set forth in the claims by including in all independent claims (claims 1, 9, 15, 16, 21, 25, 32, 36, and 40) the limitation of the tuner being capable of powering-on, and/or of the tuner powering-on. Applicant has canceled claims 8 and 24 directed to this feature without prejudice or disclaimer thereto. Applicant submits that in

view of these amendments the basis for the stated rejections of all pending claims is seen to be removed.

Under 35 U.S.C. Section 103, the U.S. Patent and Trademark Office has the burden of establishing a *prima facie* case of obviousness. The burden can be satisfied "*only* by showing some *objective* teaching in the prior art or knowledge generally available to one of ordinary skill in the art." (Emphasis Added). *In re Fine*, 837 F.2d 1071 (CAFC 1988). Thus, one must be able to point to something in the prior art that suggests in some way the modification of the particular reference to obtain the claimed invention. Accordingly, for reasons which follow, neither Young nor any combination thereof teaches or suggests Applicant's novel system as recited by claims 1-7, Applicant's novel method as recited by claims 9-14, Applicant's novel computer readable medium as recited by claim 15, Applicant's novel system recited by claims 16-20, Applicant's novel system as set forth in claims 21-23, Applicant's novel system as set forth in claims 25-31, Applicant's novel computer readable medium as recited by claims 32-35, Applicant's novel method as recited by claims 36-39 or Applicant's novel system as recited by claims 40-43. Nor is there any objective teaching in Young that would suggest modifying the embodiments disclosed therein to obtain the present invention.

In determining whether a section 103 rejection is proper, it is necessary to determine the subject matter of the claimed invention, "as a whole". There is no "essential part" of the claimed invention, or "gist" or "heart" or "core" of the invention that is evaluated in determining the invention's obviousness. *Loctite v. Ultraseal, Ltd.*, 781 F.2d 861, 228 USPQ 90 (CAFC 1985). In evaluating obviousness, it is necessary to consider *all* the subject matter defined in the claim under consideration, not most or part of it.

The Office Action admits that Young does not explicitly teach the feature of the tuner powering-on. The Office Action takes Official Notice that such a feature was well known in the art at the time the invention was made, and asserts that it would have been obvious "to modify Young with the well known technique of automatic power-on of a tuner in order for the subscriber to receive requested programming at the appropriate time".

Applicant respectfully objects to the taking of Official Notice of an element of the claims missing in the prior art, and pursuant to MPEP § 2144.03, Applicant respectfully traverses the assertion of Official Notice and requests that the Examiner cite references in support of this

position. If the Examiner's rejection is grounded in facts included in the Examiner's personal knowledge, Applicant requests that the Examiner support the personal knowledge with an affidavit as provided for in 37 C.F.R. § 1.104(d)(2) and 1.107(b). If the Examiner is unable to cite a reference that teaches a "key" element as described by the Applicant in the present invention or provide an affidavit, Applicant respectfully requests reconsideration and allowance of claims 1-7, 9-23, and 25-43.

#### Claims 1-7

Applicant submits that Young fails to establish all of the elements of claim 1. Applicant cannot find in Young a system as set forth in claim 1. Applicant's novel system as recited by independent claim 1 as amended is directed to a computerized-system for scheduled caching of in-band data broadcast in a channel comprising a real-time scheduling process, and a scheduling process operable for determining a scheduled time and channel for an in-band data broadcast, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process is operable for instructing tuner circuitry to power-on and to tune to the scheduled channel, for receiving the in-band data from the tuning circuitry regardless of the presence of a user, and for storing the in-band data for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by a user. These features are present in claims 2-7 depending therefrom.

Since Young fail to teach or suggest these features it is respectfully submitted that claims 1-7 are patentably distinguished.

#### Claims 9-14

Young fails to establish all of the elements of claim 9. Young does not teach or show a method as set forth in claim 9. Applicant's novel method as recited by independent claim 9 is directed to scheduled caching of in-band data broadcast and comprises determining a schedule for the in-band data broadcast, wherein the schedule comprises a time and a channel, said determining being initiated by a user, instructing tuning circuitry to power-on and to tune to the schedule channel at approximately the schedule time, receiving the in-band data broadcast in the schedule channel regardless of the presence of a user, and storing the in-band data on mass

storage for subsequent retrieval and viewing or use by a user. These features are present in claims 10-14 depending therefrom.

Since Young fails to teach or suggest these features it is respectfully submitted that claim 9 is patentably distinguished. Claims 10-14 are directed to further limitations to a patentable base claim.

Claim 15

Young fails to establish all of the elements of claim 15. Applicant cannot find in Young a computer readable medium as set forth in claim 15. Claim 15 is directed to a computer-readable medium having computer-executable instructions stored thereon for determining a schedule for the in-band data broadcast, wherein the schedule comprises a time and a channel, said determination being initiated by a user, instructing tuning circuitry to power-on and to tune to the schedule channel at approximately the schedule time, receiving the in-band data broadcast in the schedule channel regardless of the presence of the user and storing the in-band data on mass storage for subsequent retrieval and viewing or use by the user. Since Young fails to establish all of these elements it is respectfully submitted that claim 15 is patentably distinguished.

Claims 16-20

Young fails to establish all of the elements of claim 16. Applicant cannot find in Young a digital processing system as set forth in claim 16. Claim 16 is directed to a digital processing system which comprises a scheduled caching program executed from a computer-readable medium by a processor, wherein the scheduled caching program initiated by a user causes the real-time clock circuitry to schedule a subsequent execution of the scheduled caching program at approximately a scheduled time and the subsequent execution of the scheduled caching program, regardless of the presence of the user, instructs the tuning circuitry to power-on and to tune to a channel, receives in-band data from the tuning circuitry, and stores the in-band data for subsequent processing for subsequent retrieval and viewing or use by the user. These features are present in claims 17-20 depending therefrom. Since Young fails to establish all of these elements, it respectfully submitted that claims 16-20 are patentably distinguished, claims 17-20

being directed to further limitations to a patentable base claim.

Regarding claims 17,18, 19 and 20, Applicant submits that any bases for the stated rejections are seen to be removed by the foregoing amendment to claim 16.

#### Claims 21-23

Young fails to establish all of the elements of claim 21. Applicant cannot find in Young a computerized system as set forth in claim 21. Claim 21 is directed to a computerized-system for scheduled caching of in-band data broadcast in a channel comprising a real-time scheduling process and a user-initiated scheduling process having means for determining a scheduled time and channel for an in-band data broadcast, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process has means for instructing tuner circuitry to power-on and to tune to the scheduled channel regardless of the presence of a user, for receiving the in-band data from the tuning circuitry, and for storing the in-band data for subsequent processing. These features are present in claims 22-23 depending therefrom which present further limitations to a patentable base claim. Since Young fails to establish all of these elements, it respectfully submitted that claims 21-23 are patentably distinguished.

Regarding claims 22 and 23, Applicant submits that any bases for the stated rejections are seen to be removed by the foregoing amendment to claim 21.

#### Claims 25-31

Young fails to establish all of the elements of claims 25-31. Claim 25 is directed to an information handling system comprising a tuner capable of powering-on and tunable to a plurality of channels and a scheduler configured to determine a scheduled time and a scheduled channel from the plurality of channels for receiving information associated with the scheduled channel, the operation of said scheduler being initiated by a user, wherein the tuner powers-on and tunes to the scheduled channel at approximately the scheduled time, regardless of the presence of the user, to receive the information associated with the channel. Applicant cannot find in Young such a system. These features are present in claims 26-31, which include further limitations to a patentable base claim. Since Young fails to establish all of these elements, it is



respectfully submitted that claims 26-31 are patentably distinguished.

Claims 32-35

Young fails to establish all of the elements of claims 32-35. Claim 32, from which claims 33-35 depend, is directed to a computer-readable medium having computer-executable instructions stored thereon for performing steps comprising determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said determining being initiated by a user; and instructing a tuner to power-on and to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel, regardless of the presence of the user, and store the information associated with the channel for subsequent processing. Applicant cannot find in Young such a computer readable medium. These features are present in claims 33-35 which provide further limitations to a patentable base claim. Since Young fails to establish all of these elements, it is respectfully submitted that claims 33-35 are patentably distinguished.

Claims 36-39

Young fails to establish all of the elements of claims 36-39. Claim 36, from which claims 37-39 depend, is directed to a method for handling information comprising the steps of determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said determining being initiated by a user; and instructing a tuner to power-on and to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel regardless of the presence of the user, and store the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user. Applicant cannot find in Young such a method. These features are present in claims 37-39. Since Young fails to establish all of these elements, it is respectfully submitted that claims 37-39 are patentably distinguished.

Claims 40-43

Young fails to establish all of the elements of claims 40-43. Claim 40, from which claims

41-43 depend, is directed to an information handling system comprising a tuner having means for powering-on and means for tuning to a plurality of channels; and a scheduler having means configurable for determining a scheduled time and scheduled channel to receive and store information associated with the scheduled channel, the operation of said scheduler being initiated by a user, wherein the means for powering-on powers-on and the means for tuning tunes to the scheduled channel at approximately the scheduled time to receive the information associated with the channel, regardless of the presence of the user, and stores the information associated with the channel for subsequent processing. Since Young fails to establish all of these elements, it is respectfully submitted that claims 40-43 are patentably distinguished.

Applicant submits that neither Young nor any combination based thereon renders obvious claims 1-7, 9-23, and 25-43 of the present invention. In the interest of brevity, Applicant reincorporates the foregoing arguments with regard to the rejection of claim 6 based on Young and Yoshinobu (U.S. 5,686,954), and the rejection of claims 28, 35, 39 and 43 based on Young and LaJoie (U.S. 5,850,218). Combination of the cited references to support a rejection under section 103 could only be based on improper hindsight in view of Applicant's disclosure. "When prior art references require selective combination ... to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight obtained from the invention itself." *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 227 USPQ 543,551 (CAFC 1985). For reference structures to be properly combined, there must be some motivation for the combination. There must be some teaching, suggestion or incentive to make the combination claimed by Applicant. *Northern Telecom, Inc. v. Datapoint Corp.*, 15 USPQ2d 1321, 1323 (CAFC 1990). Such a teaching or suggestion is absent.

In view of the foregoing, the basis for the stated rejections is seen to be removed. Withdrawal of the stated rejections in view of Young, the combination of Young and Yoshinobu and the combination of Young and LaJoie, and notice of allowance of claims 1-7, 9-23, and 25-43 are respectfully requested.

### **CONCLUSION**

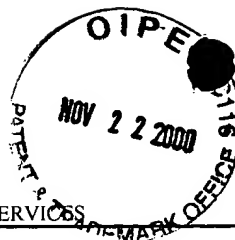
Applicant believes the claims are in condition for allowance and requests reconsideration of the application and allowance of the claims, i.e., claims 1-7, 9-23 and 25-43. The Examiner is invited to telephone the below-signed attorney at 612-371-2148 to discuss any questions which

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may remain with respect to the present application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-0439.

**RECEIVED**

Respectfully submitted,

**NOV 29 2000**

**THEODORE D. WUGOFSKI**      **Technology Center 2600**

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Date: November 22, 2000

By

  
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This paper or fee is being deposited on the date indicated above with the United States Postal Service pursuant to 37 CFR 1.10, and is addressed to the Commissioner for Patents, Box CPA, Washington, D.C. 20231.